

HUBERT C. LAMBERT
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Acting

P. O. Box 621
Vernal, Utah

June 17, 1965

MEMORANDUM

TO: HUBERT C. LAMBERT
FROM: ROBERT F. GUY
SUBJECT: POT CREEK - UTAH-COLORADO

On June 15th Robert F. Guy of this office inspected the records at the courthouse at Craig, Colorado in regards to the Massey and Karren rights out of Pot Creek in Colorado. A research of the transcript taken on Civil #1899, under which the Massey and Karren rights are decreed, disclosed the following:

1. Karren right:

This right was protested by Zelfh Calder, who attempted to prove abandonment. However, he failed to do so and the Court recognized the existance of the right. This right is for 3 1/2 second feet with a direct flow of 3 second feet and the 1/2 second foot to go towards filling Dry Lake Reservoir with a capacity of 18.36 acre feet. In the event that the Dry Lake Reservoir is filled the right drops to 3 second feet.

NOTE: This water is taken through the Miles ditch. During the questioning it was brought out that there was some supposed conflict between the Colorado rights and the Utah rights. However, the Court refused to hear it. The Court stated that this matter should be heard in the appropriate Federal Court or by a new Memorandum of Understanding between Utah and Colorado.

2. Massey Right:

The Massey right consists of a direct flow right of 3 second feet direct flow out of Pot Creek through the Offield ditch or ditches, with these ditches being diverted immediately below the Offield Reservoir. The Offield Reservoir has a capacity of 198 acre feet. However, the storage is limited to 64 acre feet on the basis that there are only 64 acres irrigated. This right was not questioned or protested.

Robert F. Guy
AREA ENGINEER
UINTAH BASIN

RFG/ln

cc: Calder & Br. l



THE STATE OF UTAH
OFFICE OF STATE ENGINEER
SALT LAKE CITY

Copy

WAYNE D. CRIDDLE
STATE ENGINEER

REPORT

TO: Wayne D. Criddle, State Engineer of Utah

FROM: Robert F. Guy, Area Engineer, and Dave Rasmussen, Pot Creek Water Commissioner.

Subject: Release of water from the Crouse (Bill Allen) Reservoir on *Pot Creek*

Date: July 13, 1961

Wednesday, July 5, 1961

Bill Karren and Julian Massey called at the Vernal office and requested the stored water in the Crouse (Bill Allen) Reservoir and belonging to the Colorado rights be released immediately. Dave Rasmussen, Pot Creek Water Commissioner, was unavailable at the time so Mr. Guy consented to start the release.

Mr. Dayle Webb (of the U. S. G. S.) and Robert Guy arrived at the reservoir at 2:00 PM July 5, 1961. There they met Mr. Wesley Signs, Irrigation Division Engineer for the State of Colorado. Julian Massey and Bill Karren were completing the installation of a 5 foot rectangular weir at the base of the Crouse (Bill Allen) Reservoir. With the aid of an engineer's level furnished by Mr. Signs the weir was leveled, and the staff gage positioned and set. At 5:30 PM the reservoir gate was opened and the flow set for 9.68 cfs. The staff gage on the weir read 0.71.

The consensus of opinion between Mr. Guy, Dayle Webb, Wesley Signs, Bill Karren and Julian Massey was that it would be wiser to release 9.68 cfs at that time, observe how the water reacted in the channel, and then later release more water if conditions permit.

The channel wet approximately 2 miles below the reservoir to Bill Allen's diversion. Below this diversion the channel appeared to be very dry.

On July 5, 1961, according to the records of Dave Rasmussen, there was 42 acre feet of water belonging to the Colorado rights yet to be released from the Matt Warner Reservoir.

Thursday, July 6, 1961 -- Crouse (Bill Allen) Reservoir

Time of visit -- 12 noon.

Staff gage on weir below reservoir -- 0.71

Flow -- 9.68

Comment -- At 12:30 PM the water had reached approximately 4 miles downstream from the reservoir. As mentioned above, the channel was wet previously from the reservoir to Bill Allen's diversion which undoubtedly contributed to the distance covered by the water. Ahead of the stream, the channel was very dry with numerous "Pot Holes". A few of the deeper holes showed a slight dampness. The flow appeared to be maintained well considering the channel conditions. At a point approximately 5 miles below the reservoir in the area known as "Clarks Pasture" a bulldozer, hired by the Colorado users, was operating in the stream channel removing beaver dams and other obstructions.

Friday, July 7, 1961 -- Crouse (Bill Allen) Reservoir.

Time of visit -- 2:30 PM.

Staff gage on weir below reservoir -- 0.71.

Flow -- 9.68

Comment -- The water had progressed approximately 6 miles from the reservoir. In this section of the channel the stream was moving quite slow as the channel was flat and meandering. A fair stream of water was flowing approximately 1/2 mile upstream (est. 5 cfs).

A visitation was made to the weir at the Matt Warner Reservoir for the purpose of checking the measurement on the water being released to the Colorado rights. At that time the dam around the weir was leaking so much that it was impossible to get an accurate reading. Dave Rasmussen had previously set the reservoir gate to release 7.5 cfs. It was assumed that the previously measured 7.5 cfs was still good and so no measurement was taken at the weir. Dayle Webb, who was along on this trip, consented to take a current meter measurement in the channel below the weir. He measured 7.3 cfs 1/4 mile below the weir.

Saturday, July 8, 1961

Matt Warner Reservoir

Time of visit -- 6:00 PM.

Lower reservoir gage -- 6.0

Comment -- All the water belonging to the Colorado rights had been released and the remaining water in the reservoir belonged to Zelfh Calder. The reservoir gate was closed, locked and the key given to Mr. Calder. The gate was locked to prevent anyone from tampering with it.

Area below the Crouse (Bill Allen) Reservoir

Time of visit -- 6:30 PM

Comment -- At this time the water has reached approximately 8 miles below the reservoir. The channel is still flat and meandering and the progress of the water is slow.

On the way back to Vernal Messrs. Rasmussen and Guy were intercepted by Bill Allen who stated that the Shiner Brothers had damned Pot Creek and were taking water through two ditches. They returned to Pot Creek and broke the dams. Neither Mr. Rasmussen nor Mr. Guy had any means of measuring the amount of water in the ditches so all that could be done was to estimate. It was estimated that each of the two ditches held

one cfs. The Shiners could have been diverting water during the previous 5 days. Using the above assumption as a basis it was estimated that at least 20 acre feet had been diverted. Under the circumstances it was deemed necessary to charge the Colorado users with the loss as it was their water in the channel at the time.

Monday, July 10, 1961 -- Crouse (Bill Allen) Reservoir.

Time of visit -- 5:30 PM

Staff gage on weir below reservoir -- 0.71

Flow -- 9.68 cfs.

Upon observing the channel it was noted that the bank was wet 6 to 8 inches above the water level. With these conditions in mind Messrs. Rasmussen and Guy decided to release another 5 cfs from the reservoir.

Staff gage on weir below reservoir -- 0.95

Flow -- 14.8 cfs.

Comments -- At 7:00 PM the water had reached Bill Karren's diversion in Colorado. This diversion is approximately one mile from the Utah-Colorado line and approximately 12 miles from the Crouse (Bill Allen) Reservoir.

The U. S. G. S. gage on the Utah-Colorado line was visited at this time.

Outside staff gage -- 1.04

Flow -- 5.50 cfs.

Wednesday, July 12, 1961 -- Crouse (Bill Allen) Reservoir.

Time of visit -- 6:30 PM.

Staff gage on weir below reservoir -- 0.90

Flow -- 13.7 cfs.

Calculated flow for this day -- 28.52 acre feet

Comment -- The release of the water to the Colorado users having been

completed, the gate to the Crouse (Bill Allen) Reservoir was closed at 6:30 PM.

The U. S. G. S. gage was visited.

Outside staff gage -- 1.20

Flow -- 10.9 cfs.

At 4:00 PM water was being stored in the Offield and Karren reservoirs. Bill Karren's ditch was filled to capacity and the excess was flowing downstream into the Offield Reservoir. There was 4.54 cfs in the Karren ditch (measured at a 2 foot rectangular weir at the head of the ditch).

Downstream from the U. S. G. S. gage the stream channel has a steeper gradient and in places flows over bedrock. These channel conditions prevail down to the Offield Reservoir. Consequently, channel losses in this section of the channel should be negligible.

Conclusion -- Of the 154.92 acre feet of water released from the Crouse (Bill Allen) Reservoir 75.12 acre feet flowed past the U. S. G. S. gage on the Utah-Colorado line. ✓

A number of photographs were taken by Dave Rasmussen. These pictures, when developed, will be submitted.

An analysis of the flow chart taken from the U. S. G. S. gage on the Utah-Colorado line is shown on a separate sheet.

Data on the release is shown on a separate sheet.

Respectfully submitted

(Signed) Robert F. Guy
Area Engineer

(Signed) David R. Rasmussen
Pot Creek Water Commissioner

DATA SHEET

183.00 ac. ft. This figure represents the water allocated to the Colorado rights as computed from the U. S. G. S. flow records on Pot Creek above the Matt Warner Reservoir. The computations were based on the priority schedule which gives the first 5 cfs to Bill Allen, the next 6 cfs to the Colorado rights and the remainder to Zelfh Calder.

-18.30 ac. ft. 10% storage loss in the Matt Warner Reservoir.

164.70 ac. ft. Water stored in the Matt Warner Reservoir and belonging to the Colorado rights.

- 9.78 ac. ft. Conveyance loss between Matt Warner and Crouse Reservoirs.

154.92 ac. ft.

-20.00 ac. ft. Estimated amount of water diverted by Shiner Brothers.

134.92 ac. ft.

+20.00 ac. ft. Holdover storage in the Crouse (Bill Allen) Reservoir.

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154.92 ac. ft. Total amount of water to be released from the Crouse (Bill Allen) Reservoir to the Colorado rights.

96.80 ac. ft. Amount of water released from the Crouse (Bill Allen) Reservoir from 5:30 PM July 5 to 5:30 PM July 10, 1961.

29.60 ac. ft. Amount of water released from the Crouse (Bill Allen) Reservoir from 5:30 PM July 10 to 5:30 PM July 11, 1961.

28.52 ac. ft. Amount of water released from the Crouse (Bill Allen) Reservoir from 5:30 PM July 11 to 6:30 PM July 12, 1961.

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154.92 ac. ft. Total amount of water released from the Crouse (Bill Allen) Reservoir to the Colorado rights.

REPORT

An analysis was made of the flow chart taken from the U. S. G. S. gage on the Utah-Colorado line for the period of July 9 to July 14, 1961. The following information was obtained.

1. It took 9.68 cfs of water 3 days 17 hours and 40 minutes to reach the gage from the Crouse (Bill Allen) Reservoir, a distance of approximately 11 miles.
2. The recorder chart showed an instantaneous rise from 0 cfs to 2.37 cfs with a gradual rise and stabilizing at 6.50 cfs. This would indicate that the maintained head at this point was 2.37 cfs.
3. On Monday, July 10 the flow from the Crouse Reservoir was increased to 14.8 cfs. This increased flow was noted on the recorder chart 12 and 1/2 hours later. The flow increased rapidly from 6.50 cfs to a stabilized 11.7 cfs.
4. The gate on the Crouse Reservoir was closed at 6:30 PM on July 12. The flow past the gage started decreasing at 6:00 PM July 13 for a time difference of 11 and 1/2 hours. The flow gradually decreased until the gage ceased recording at 12 PM July 14, 1961.
5. The total calculated flow past the gage for the period of July 9 to July 14, 1961 was 75.12 cfs.

R. F. G.